Rajesh Jha

College of Tropical Agriculture and Human Resources

Department of Human Nutrition, Food and Animal Sciences

FTE Distribution: 50% I; 40% R; 10% E

**EDUCATION AND TRAINING
Postdoctoral Research Associate** (Dec 2009 - Aug 2012)

(*started working before PhD Thesis defense*) University of Alberta (UofA), Canada Specialization: Swine nutrition and gut health

**PhD,** Animal Science (Sept 2006 - Apr 2010) University of Saskatchewan (USASK), Canada Specialization: Swine nutrition and gut health

**MSc**, Animal Science & Aquaculture (Sept 2004 – Aug 2006) Wageningen University(WU), Netherlands
Specialization: Poultry nutrition
(Worked for Minor Thesis at Massey University, New Zealand)

**Diploma,** Food and Nutrition Program Planning and Management (Apr – July 2003) Regional Training Centre for Food and Nutrition Program Planning,
University of Philippines, Los Baños, Philippines

**BVSc & AH,** Veterinary Science and Animal Husbandry (Apr 1990 – Mar 1996) (equivalent to **DVM** degree as certified by ECFVG/AVMA)

Tribhuvan University (TU), Nepal

**PROFESSIONAL EXPERIENCE**

• **Aug 2017 to date: Associate Professor of Animal Nutrition:** HNFAS, CTAHR, UHM
• **Sept 2012 to July 2017- Assistant Professor of Animal Nutrition**: HNFAS, CTAHR, UHM

▪Courses teaching:
o ANSC/FSHN 244- Comparative Nutrition (Undergraduate course)
o ANSC 321- Applied Animal Nutrition (Undergraduate course)
o ANSC 642- Advance Animal Nutrition (Graduate course)
o FSHN 682- Special Topics in Nutritional Sciences (Graduate course) o Guest lectures for other courses, on as needed basis.

▪Established and leading a very active and productive Animal Nutrition Research Lab focused on evaluating feedstuffs / dietary fibers and feed additives (prebiotics, probiotics, and enzymes) for their nutritional and functional value in livestock animals (poultry, pig, and fish) using *in vivo*, *in vitro,* and *in ovo* models. The research works aim at identifying, characterizing and optimizing novel feedstuffs/ dietary fibers and feed additives for their potential role as “alternative to antibiotics” to improve gut physiology and health of animals in post-antibiotic era while developing cost-effective and sustainable animal feeding program. Research activities and outcomes are reflected as “Professional achievement” (*see below*). Updated information about my research program is also available on my lab website.

▪Advising and mentoring Visiting Researchers, Postdoctoral fellows, PhD, MS, and BS students as well as international visiting researchers on a regular basis. Since I started working at UHM in September 2012, I have supervised and mentored 2 Visiting Researchers (China and Germany), 2 Postdoctoral fellows, 3 PhD students, 10 MS students, and 7 BS students, in addition to 15 International visiting research students (Japan- 2, France- 3, Brazil- 4, and Thailand- 6) and 18 summer research students. Also, I have co-mentored 24 other graduate students while serving on their thesis advisory committee. Details on my mentees are available on my lab website and will be made available upon request.

* + **May to Aug 2019- Visiting Professor** (*Concurrent Position*): Kyoto University, Japan.
	+ **Jan 2019 to date- Visiting Professor** (*Concurrent Position*): Hainan University, Haikou, China.
	+ **Aug 2016 to date- Visiting Professor** (*Concurrent Position*): Northwest Agriculture & Forestry

University, Yangling, China.

* + **May 2014 to date- Visiting Professor** (*Concurrent Position*): Dankook University, Cheonan,

Korea.

* + **Nov 2012 to date- Graduate Faculty** (*Concurrent Position*): Molecular Biosciences and

Bioengineering Program, UHM

* + **Sept 2012 to date- Graduate Faculty** (*Concurrent Position*): Nutritional Sciences Program,

UHM

* + **Dec 2009 to Aug 2012- Research Associate**Department of Agricultural, Food and Nutritional Science, University of Alberta, Canada

I worked in a team of researchers to develop, maintain, and strengthen a modern Swine nutrition research program.

* + **Sept 2007 to Aug 2009- Graduate Teaching Assistant** (Independent Lab Instructor) Department of Animal and Poultry Sciences, USASK, Canada
	+ **Sept 2006 to Dec 2009 - Graduate Research Assistant** (leading to a PhD degree) Prairie Swine Centre, Saskatoon, Canada

I worked with the Centre’s ongoing research projects, including my PhD dissertation. My research project was to study the dietary fiber fermentation in the intestine and its effect on the gut health of pig.

* + **Sept 2004 to Jul 2006 - Graduate Researcher (**leading to MSc degree) Animal Nutrition Group, Wageningen University, The Netherlands

I worked with the group’s ongoing research projects, with a focus on my MSc thesis project.

As part of my MS degree program, I worked at Riddet Institute, Massey University, New Zealand for my minor thesis research project on “Comparative study of pig and human nutrition”.

* + **Dec 1997 to Sept 2004 - Livestock Development Officer** Department of Livestock Services (DLS), Government of Nepal

I worked as a Departmental authority at the district level to improve the livestock sector as a whole.

* + **Nov 2001 to Jan 2003 - Livestock Expert** (*on secondment from DLS Nepal*) Food and Agriculture Organization (FAO), Nepal Office

I was responsible for planning, implementation and monitoring the livestock component of a multidisciplinary project that supported women's empowerment and its positive impact on food security, nutrition and health of the local people through diversification of food production and year-round access to a balanced diet.

* + **May 1997 to Dec 1997 - Technical Officer**Pakhribas Agriculture Centre Nepal (a British funded and managed research center) I worked with the Centre’s Animal Health and Livestock Research Program.

• **Oct 1992 to May 1993 - Research Assistant** Directorate of Research, TU, Nepal

I assisted in on-going Animal Science related research projects.

**Book** (Co-editor)
1. Nutritional Intervention for the Intestinal Health of Young Monogastric Animals. Co-editors:

S. W. Kim and **R. Jha**. Frontiers in Veterinary Science. (*In progress*)

**Book chapter** (\*corresponding author, underlined authors are my mentees)

1. **R. Jha\*** and T. A. Woyengo (2019). Cereal Grains, Cereal Grain Byproducts, and Alternative Energy Sources. In: L. I. Chiba (Ed.), Sustainable Swine Nutrition (2nd Ed.). Wiley-

Blackwell Publisher (*in preparation*).

1. **R. Jha**\*, A. K. Singh, S. Yadav, J. F. D. Berrocoso, and B. Mishra (2019). Early nutrition

programming (in ovo- and post hatch-feeding) as a strategy to modulate gut health of poultry. In: S. W. Kim and **R. Jha** (Eds.), Nutritional Intervention for the Intestinal Health of Young Monogastric Animals. Frontiers in Veterinary Science (*doi:10.3389/fvets.2019.00082*). [PDF].

1. B. Mishra\* and **R. Jha** (2019). Oxidative stress in poultry gut: Potential challenges and intervention. In: Co-Eds: S. W. Kim, and **R. Jha.** In: S. W. Kim and **R. Jha** (Eds.), Nutritional Intervention for the Intestinal Health of Young Monogastric Animals. Frontiers in Veterinary Science, 6:60 (*doi:10.3389/fvets.2019.00060*). [PDF].
2. **R. Jha**\*, J. M. Fouhse, U. P. Tiwari, L. Li, and B. P. Willing (2019). Dietary fibers and intestinal health of monogastric animals. In: S. W. Kim, and **R. Jha** (Eds.), Nutritional Intervention for the Intestinal Health of Young Monogastric Animals. Frontiers in Veterinary Science, 6:48 (*doi:10.3389/fvets.2019.00048*). [PDF].
3. P. J. Moughan, W. Miner-Williams, and **R. Jha** (2018). Protein digestion- amino acid digestibility. In: P. J. Moughan, and W. Hendriks (Eds.), Feed Evaluation Science. Wageningen Academic Publishers, the Netherlands, pp. 173-217. [PDF].

**Conference Proceeding**

1. **R. Jha**\* and U. P. Tiwari (2016). Rapid techniques in feed evaluation: Scope and limitations. **Proceedings of New Zealand Poultry Industry Conference, Vol 13** (Oct 4-5, 2016), Wellington (Editors, M. R. Abdollahi and V. Ravindran). Published by the Monogastric Research Centre, Massey University, Palmerston North, New Zealand. pp. 84-102.
2. Y. S. Kim\*, G. Fukumoto, M. Stevenson, M. Thorne, and **R. Jha** (2016). Carcass traits and tenderness of grass-fed beef from subtropical pastures in Hawaii. **Proceedings of 17th AAAP Animal Science Congress** (Aug 22-25, 2016), Fukuoka, Japan. pp. 1525-1529.
3. U. P. Tiwari and **R. Jha\*** (2015). Nutrient profile and in vitro digestibility of fresh and ensiled cassava in swine. **Proceedings of 3rd International Seminar on Animal Industry** (Sept 17- 18, 2015), Bogor, Indonesia. pp. 248-249.
4. R. T. Zijlstra\* and **R. Jha** (2012). Novel swine feeding programs to enhance competitiveness and pork differentiation: Feedstuffs and Carbohydrates. **Advances in Pork Production,** 23:227-232.
5. R. T. Zijlstra\*, P. Regmi, L. Wang, and **R. Jha** (2011) In vitro techniques to describe energy digestibility and kinetics of carbohydrate degradation of feedstuffs in pigs. **Computerized Journal of Pig Production**, 18 (3):174-176.
6. R. T. Zijlstra\*, M. Swift, L. Wang, P. Regmi, J. H. Helm, and **R. Jha** (2010). Rapid methods for prediction of energy values of feedstuffs for pigs. **Proceedings of Western Nutrition Conference** (Sept 21-23, 2010), Saskatoon, SK, Canada. pp. 235-242.
7. **R. Jha\***, B. Pakhrin, and R. P. Thakur (1997). Reproductive problems in pigs in the eastern hills of Nepal. **Proceedings of Second National Workshop on Livestock and Fisheries Research** (Sept 24-25, 1997), Lalitpur, Nepal. pp. 11-17.
8. I. P. Dhakal\*, **R. Jha**, and H. B. Basnet (1996). Common diseases of livestock at Pathivara VDC of Sankhuwasava. **Bulletin of Veterinary Science and Animal Husbandry Nepal**, 24:95-99.

**Peer-reviewed Journal** (\*corresponding author, underlined authors are my mentees)

Submitted
1. P. Adhikari\*, A. Kiess, R. Adhikari, and **R. Jha**. Nutritional strategies to control avian

coccidiosis and necrotic enteritis: A focus on intestinal health. **The Journal of Applied Poultry Research** (*resubmitted* after revision, Oct 6, 2019).

C. Li, Z. Niu, M. Zou, S. Liu, M. Wang, X. Gu, H. Lu, H. Tian\*, and **R. Jha**\*. Probiotics, prebiotics, and synbiotics regulate the intestinal microbiota differentially and restore the relative abundance of specific gut microorganisms, studied using a newly established mouse intestinal microbiota imbalance model. **Journal of Functional Food (***submitted* Sept 23, 2019)

1. H. T. Nhan\*, T. Q. Nhu, H. Ako, and **R. Jha**. Effects of dietary arachidonic acid on final maturation, spawning, and composition of gonad of black sea urchin Diadema setosum (Leske, 1778). **Aquaculture Nutrition** (*submitted* Aug 18, 2019).
2. U. P. Tiwari\*, S. A. Fleming, M. S. A. Rasheed, **R. Jha**, and R. N. Dilger. The role of oligosaccharides and polysaccharides of xylan and mannan on gut health of monogastric animals. **Journal of Nutritional Science** (*submitted* Aug 8, 2019)
3. S. Wasti, N. Sah, D. L. Kuehu, Y. S. Kim, **R. Jha**, and B. Mishra\*. Expression of follistatin is associated with egg formation in the oviduct of laying hens. **Animal Science Journal** (*submitted* May 1, 2019).
4. J. S. Odani\*, E. M. Sox, W. Coleman, **R. Jha**, and R. Malik. First documented cases of canine neuroangiostrongyliasis due to *Angiostrongylus cantonensis* in Hawaii. **Journal of the American Animal Hospital Association** (*submitted* Apr 15, 2019).

Published

1. B. J. Kerr, P. E. Urriola, **R. Jha**, J. Thomson, S. M. Curry, and G. C. Shurson (2019). Amino

acid composition and digestible amino acid content in animal protein by-product meals fed to

growing pigs. **Journal of Animal Science** (*doi: 10.1093/jas/skz294*). [PDF]

1. J. L. Yanez, T. A. Woyengo, **R. Jha**, T. A. T. G. van Kempen, and R. T. Zijlstra (2019). Nutrient digestibility of soybean products in grower-finisher pigs. **Journal of Animal**

**Science** (*doi: 10.1093/jas/skz290*). [PDF]

1. A. K. Singh, U. P. Tiwari, Y. Dersjant-Li, A. Awati, and **R. Jha\*** (2019). Effect of a

combination of xylanase, amylase, and protease and probiotics on major nutrients including amino acids and non-starch polysaccharides utilization in broilers fed different level of fibers. **Poultry Science,** 98:5571-5581. [PDF]

1. S. Yadav, B. Mishra, and **R. Jha**\* (2019). Cassava (*Manihot esculenta*) root chips inclusion in broiler chicken diets: effects on growth performance, ileal histomorphology and cecal volatile fatty acid production. **Poultry Science,** 98:4008-4015. [PDF]
2. J. Yang, **R. Jha**, W. L. Zhang and I. H. Kim\* (2019). Effects of chitooligosaccharide supplementation on egg production, egg quality and blood profiles in laying hens. **Indian Journal of Animal Research,** 53:1199-1204*.* [PDF]
3. U. P. Tiwari, A. K. Singh, and **R. Jha**\* (2019). Fermentation characteristics of resistant starch, arabinoxylan and β-glucan and their effects on the gut microbial ecology of pigs: A review. **Animal Nutrition,** 5:217-226. [PDF]
4. S. Oak, and **R. Jha\*** (2018). The effects of probiotics in lactose intolerance: A systematic review. **Critical Reviews in Food Science and Nutrition,** 59(11):1675-1683. [PDF]
5. **R. Jha** and R. Zijlstra\* (2019). Physico-chemical properties of purified starch affect their *in vitro* fermentation characteristics and are linked to in vivo fermentation characteristics in pigs. **Animal Feed Science and Technology,** 253:74-80. [PDF]
6. H. T. Nhan\*, L. H. Jung, T. T. Thanh Hien, and **R. Jha**. Effects of different dietaries natural carotenoid sources on skin coloration of false clownfish (*Amphiprion ocellaris* Cuvier, 1830). **Aquaculture Nutrition,** 25:662-668. [PDF]
7. S. Yadav, and **R. Jha**\* (2019). Strategies to modulate the intestinal microbiota and their effects on nutrient utilization, performance, and health of poultry. **Journal of Animal Science and Biotechnology**, 10:2. [PDF]
8. Y. Liu, **R. Jha**, and H. H. Stein\* (2018). Nutritional composition, concentration of gross energy, and in vitro digestibility of dry matter in 46 sources of bakery meals. **Journal of Animal Science**, 96(11):4685-4692. [PDF]
9. N. Sah, D. L. Keuhu, V. Khadka, Y. Deng, K. Peplowska, **R. Jha**, and B. Mishra\* (2018). RNA sequencing-based analysis of the laying hen uterus revealed the novel genes and biological pathways involved in the eggshell biomineralization. **Nature- Scientific Reports**, 8:16853. [PDF]
10. U. P. Tiwari, H. Chen, S. W. Kim, and **R. Jha\*** (2018). Supplemental effect of xylanase and mannanase on nutrient digestibility and gut health of nursery pigs studied using both *in vivo* and *in vitro* model. **Animal Feed Science and Technology**, 245:77-90. [PDF]
11. A. Mau, J. P. Bingham, F. Soller, and **R. Jha**\* (2018). Maturation, spawning, and larval development of yellowfoot limpet (*Cellana sandwicensis* Pease, 1861) in aquaculture. **Invertebrate Reproduction and Development**, 62(4):239-247. [PDF]
12. A. Mau and **R. Jha**\* (2018). Aquaculture of two commercially important molluscs (Abalone and Limpet): existing knowledge and future prospects. **Reviews in Aquaculture**, 10(3):611- 625. [PDF]
13. A. M. Haygood and **R. Jha\*** (2018). Strategies to modulate the intestinal microbiota of Tilapia (*Oreochromis sp*.) in aquaculture: A review. **Reviews in Aquaculture**, 10:320-333. [PDF]
14. **R. Jha**, and R. T. Zijlstra\* (2018). Physico-chemical properties of purified fiber affect their in vitro fermentation characteristics and are linked to in vivo characteristics in pigs. **Canadian Journal of Animal Science,** 98:394-398. [PDF]
15. K. J. McDermid\*, **R. Jha**, M. R. Rice, and G. H. Balazs (2018). Of turtles and trees: Nutritional analysis of tree heliotrope (*Heliotropium foertherianum*) leaves consumed by green turtles (*Chelonia mydas*) in Hawaii. **Micronesica,** 2:1-11. [PDF]
16. A. Mau and **R. Jha\*** (2018). Effects of dietary protein to energy ratio on growth performance of yellowfoot limpet (*Cellana sandwicensis* Pease, 1861). **Aquaculture Reports,** 10:17-22. [PDF]
17. J. D. Berrocoso, S. Yadav, and **R. Jha\*** (2017). Nitrogen corrected apparent metabolizable energy of macadamia nut cake for broiler chickens. **Animal Feed Science and Technology**, 234:65-71. [PDF]
18. U. P. Tiwari and **R. Jha**\* (2017). Nutrients, amino acid, fatty acid and non-starch polysaccharide profile and in vitro digestibility of macadamia nut cake in swine. **Animal Science Journal**, 88(8):1093-1099. [PDF]
19. A. K. Singh, J. D. Berrocoso, Y. Dersjant-Li, A. Awati, and **R. Jha\*** (2017). Effect of a combination of xylanase, amylase and protease on growth performance of broilers fed low and high fiber diets. **Animal Feed Science and Technology**, 232:16-20. [PDF]
20. B. J. Kerr\*, **R. Jha**, P. E. Urriola, and G. C. Shurson (2017). Nutrient composition, digestible and metabolizable energy content, and prediction of energy for animal protein by-products in finishing pig diets. **Journal of Animal Science**, 95:2614-2626. [PDF]
21. J. D. Berrocoso, R. Kida, A. K. Singh, Y. S. Kim, and **R. Jha**\* (2017). Effect of *in ovo* injection of raffinose on growth performance and gut health parameters of broiler chicken. **Poultry Science**, 96:1573-1580. [PDF] U. P. Tiwari and **R. Jha**\* (2016). Nutrient profile and digestibility of tubers and agro- industrial coproducts determined using an in vitro model of swine. **Animal Nutrition**, 2:357- 360. [PDF]
22. B. Turano, U. P. Tiwari, and **R. Jha\*** (2016). Growth and nutritional evaluation of napier grass hybrids as forage for ruminants. **Tropical Grasslands**, 4(3):168-178. [PDF]
23. K. C. Surendra, R. Olivier, J. K. Tomberlin, **R. Jha**, and S. K. Khanal\* (2016). Insect-based biorefinery: A novel approach to produce biofuel and animal feed with concurrent organic waste remediation. **Renewable Energy,** 98: 197-202. [PDF]
24. T. A. Woyengo, **R. Jha**, E. Beltranena, and R. T. Zijlstra**\*** (2016). In vitro digestion and fermentation characteristics of canola co-products simulate their digestion in the pig intestine. **Animal**, 10:911-918. [PDF]
25. **R. Jha\*** and J. D. Berrocoso (2016). Dietary fiber and protein fermentation in the intestine of swine and their interactive effects on gut health and on the environment: A review. **Animal Feed Science and Technology**, 212:18-26. **(All time most downloaded paper of the Journal AFST)** [PDF]
26. **R. Jha\*** and J. D. Berrocoso (2015). Review: Dietary fiber utilization and its effects on physiological functions and gut health of swine. **Animal**, 9:1441-1452. [PDF]
27. **R. Jha,** T. A. Woyengo, J. Li, M. R. Bedford, T. Vasanthan, and R. T. Zijlstra**\*** (2015). Enzymes enhance degradation of the fiber-starch-protein matrix of distillers dried grains with solubles as revealed by a porcine in vitro fermentation model and microscopy. **Journal of Animal Science**, 93:1039-1051. (**Highlighted on Cover page of March 2015 issue**) [PDF]
28. U. P. Tiwari, B. Turano, and **R. Jha\*** (2014). Nutritional characteristics and in vitro digestibility by near-infrared spectroscopy of local and hybrid napiergrass varieties grown in rain-fed and irrigated conditions. **Animal Production Science**, 54:1775-1778. [PDF]
29. T. A. Woyengo, **R. Jha**, E. Beltranena, A. Pharazyn, and R. T. Zijlstra**\*** (2014). Nutrient digestibility of lentil and regular- and low-oligosaccharide, micronized full-fat soybean fed to grower pigs. **Journal of Animal Science**, 92:229-237. [PDF]
30. **R. Jha**, J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra**\*** (2013). Effect of increasing co-product inclusion and reducing dietary protein on growth performance, carcass characteristics, and jowl fatty acid profile of grower-finisher pigs. **Journal of Animal Science**, 91(5):2178-2191. [PDF]
31. **R. Jha**, A. Owusu-Asiedu, P. H. Simmins, A. Pharazyn, and R. T. Zijlstra\* (2012). Degradation and fermentation characteristics of wheat co-products from flour milling in the pig intestine, studied in vitro. **Journal of Animal Science**, E-suppl. 90 (4):173-175. [PDF]
32. R. T. Zijlstra\*, **R. Jha**, A. D. Woodward, J. Fouhse, and T. A. T. G. van Kempen (2012). Starch and fiber properties affect their kinetics of digestion and thereby digestive physiology in pigs. **Journal of Animal Science**, E-suppl. 90 (4):49-58. [PDF]
33. **R. Jha** and P.Leterme\* (2012). Feed ingredients differing in fermentable fibre and indigestible protein content affect fermentation metabolites and faecal nitrogen excretion in growing pigs. **Animal**, 6:603-611. [PDF]
34. **R. Jha**, D. N. Overend, P. H. Simmins, D. Hickling, and R. T. Zijlstra\* (2011). Chemical characteristics, feed processing quality, voluntary feed intake, growth performance, and energy digestibility among wheat classes fed in pelleted diets fed to weaned pigs. **Animal Feed Science and Technology**, 170:78-90. [PDF]
35. **R. Jha**, J. Bindelle, A. Van Kessel, and P. Leterme\* (2011). In vitro fibre fermentation of feed ingredients with varying fermentable carbohydrate and protein levels and protein synthesis by colonic bacteria isolated from pigs. **Animal Feed Science and Technology**,

165:191-200. [PDF]

1. **R. Jha**, J. Bindelle, B. Rossnagel, A. Van Kessel, and P. Leterme\* (2011). *In vitro* evaluation

of the fermentation characteristics of the carbohydrate fractions of hulless barley and other cereals in the gastrointestinal tract of pigs. **Animal Feed Science and Technology**, 163:185- 193. [PDF]

1. **R. Jha**, J. Bindelle, B. Rossnagel, A. Van Kessel, and P. Leterme\* (2010). In vitro fermentation characteristics for pigs of hulless barleys differing in β-glucan content. **Livestock Science**, 133:141-143. [PDF]
2. E. Avelar, **R. Jha**, E. Beltranena, M. Cervantes, A. Morales, and R. T. Zijlstra\* (2010). The effect of feeding wheat distiller’s dried grain with solubles on growth performance and nutrient digestibility in weaned pigs. **Animal Feed Science and Technology**, 160:73-77. [PDF]
3. **R. Jha**, B. Rossnagel, R. Pieper, A. Van Kessel, and P. Leterme\* (2010). Barley and oat cultivars with diverse carbohydrate composition alter ileal and total tract nutrient digestibility and fermentation metabolites in weaned piglets. **Animal**, 4:724-731. [PDF]
4. R. Pieper, **R. Jha**, P. Leterme, B. Rossnagel, W. Souffrant, and A. Van Kessel\* (2008). Effect of barley and oat cultivars with different carbohydrate compositions on the intestinal bacterial communities in weaned piglets. **FEMS Microbiology Ecology,** 66:556-566. [PDF]

**Extension Publication**

1. L. Stevens, M. W. DuPonte, and **R. Jha** (2019). Nutritional value of agricultural by-products of Hawaiian Islands to be used as animal feeds. **UH-CTAHR Cooperative Extension Service,** LM-34:1-9.
2. M. W. DuPonte, K. Cowell, and **R. Jha** (2016). Banana silage: An alternative feed for swine. **UH-CTAHR Cooperative Extension Service,** LM-31:1-8.
3. Y. S. Kim, G. Fukumoto, M. Stevenson, M. Thorne, and **R. Jha** (2015). Carcass traits and tenderness of Hawai‘i grass-fed beef. **UH-CTAHR Cooperative Extension Service,** LM- 29:1-7.
4. T. A. Woyengo, **R. Jha**, E. Beltranena, A. Pharazyn, and R. T. Zijlstra (2013). Nutritive value of lentil, and regular and low-oligosaccharides full-fat soybean fed to grower pigs. **Western Hog Journal,** 34 (5):58-61.
5. **R. Jha,** P. Regmi, L. Wang, A. Pharazyn, and R. T. Zijlstra (2012). Nutrient profile and energy digestibility of wheat co-products from flour milling in growing pigs. **Western Hog Journal,** 34 (2):46-48.
6. **R. Jha,** J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra (2012). The effects of increasing feed inclusions of co-products and reducing dietary crude protein on pork omega-3 fatty acid and feed cost. **Western Hog Journal,** 33 (3):46-49.
7. **R. Jha,** J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra (2011). Dietary co-products may enhance pork omega-3 fatty acid and reduce feed costs without affecting carcass quality and growth. **Western Hog Journal,** 32 (5):56-58.
8. **R. Jha** and R. T. Zijlstra (2010). Performance of weaned pig is equal among wheat classes. **Western Hog Journal,** 32 (3):48-50.
9. **R. Jha,** E. Avelar, E. Beltranena, M. Cervantes, A. Morales, and R. T. Zijlstra (2010). Feeding wheat distiller’s dried grain with solubles to weaned pigs. **Western Hog Journal,** 31 (5):38- 39.
10. **R. Jha,** L. Johnston, J. Bindelle, A. Van Kessel, and P. Leterme (2009). *In vitro* fibre fermentation characteristics of specialty ingredients with varying non-starch polysaccharides levels. **Annual Research Report**. Prairie Swine Centre, Saskatoon, SK, Canada. pp. 44-46.
11. **R. Jha,** L. Johnston, and P. Leterme (2009). The Effect of Different Feed Ingredients on Fermentation Metabolites and Nitrogen Excretion in Pigs. **Annual Research Report**. Prairie Swine Centre, Saskatoon, SK, Canada. pp. 47-48.
12. **R. Jha,** B. Rossnagel, P. Kish, R. Pieper, A. Van Kessel, and P. Leterme (2007). Hulless barleys as health-promoters for the pig gastrointestinal tract. **Annual Research Report**. Prairie Swine Centre, Saskatoon, SK, Canada. pp. 29-30.

**Leadership Roles**

1. **PROFESSIONAL SERVICE**
	* **Section Editor:** Poultry Science- Nutrition and Metabolism section (since 2019)
	* **Associate Editor:** Poultry Science (since 2018)
	* **Associate Editor**: Animal Science Journal (since 2018)
	* **Associate Editor:** Frontiers in Veterinary Science- Animal Nutrition and Metabolism (since 2018)
	* **Ad-hoc reviewer of scientific journals**:

▪Poultry Science, Journal of Animal Science, Animal Feed Science and Technology, Animal, Reviews in Aquaculture, British Journal of Nutrition, Canadian Journal of Animal Science, Animal Science Journal, Animal Production Science, Livestock Science, BMC Veterinary Research, PLoS ONE.

* + **Ad-hoc reviewer of grant proposals** for different organizations both from US and abroad. Few to name are Teagasc Ireland, NWO Netherland, and University of Wisconsin- Milwaukee.
	+ **External Examiner of PhD Dissertation- 1** (2019): University of Manitoba, Canada
	+ **External Examiner of PhD Dissertation- 1** (2019): University of New England, Australia
	+ **External Examiner of PhD Dissertation- 1** (2017): University of Queensland, Australia
	+ **External Examiner of MS Thesis- 2** (2017, 2018): The University of the South Pacific, Fiji Islands
	+ **Expert Volunteer**: Served as an Expert Volunteer in Myanmar (June 1-19, 2016), and Nepal (Dec 9-31, 2016 and Mar 15 - Apr 1, 2018) for the USAID/Farmers to Farmers program through Winrock International
	+ **Member**: NE-1442- Poultry Production Systems and Well-being: Sustainability for Tomorrow (since 2017 to date)
	+ **Chair**: NCCC042- Committee on Swine Nutrition, USDA (2017)
	+ **Vice Chair**: NCCC042- Committee on Swine Nutrition, USDA (2016)
	+ **Secretary**: NCCC042- Committee on Swine Nutrition, USDA (2015)
	+ **Member**: NCCC042- Committee on Swine Nutrition, USDA (since 2013)
	+ **Session Chair**: Nutrition, Metabolism and Health, World’s Poultry Congress (Sept 5-9, 2016), Beijing, China
	+ **Session Chair**: Animal nutrition, 3rd International Seminar on Animal Industry (Sept 17-18, 2015), Bogor, Indonesia
	+ **Session Chair**: Non-ruminant nutrition: Feed Ingredients II, Joint Animal Science Meeting (July 8-12, 2013), Indianapolis, IN, USA
	+ **Judging Science Fair and Debate Tournament**:
	▪I am serving as a judge for Science Fair and Debate Tournaments at Honolulu district level and

Hawaii State level regularly since 2012. So far, I have judged 28 such events in last 7 years.

* + **Member**- Planning Committee, Annual NACTA (North American Colleges and Teachers of

Agriculture) Conference (June 14-17, 2011), University of Alberta, Canada

* + **Member** (2007-2008): University Council, University of Saskatchewan, Canada
	+ **Course Councilor** (2007-2008): Graduate Students Association, University of Saskatchewan, Canada
	+ **Chairman** (2004-2005): International Student Panel, Wageningen University, the Netherlands
	+ **Coordinator** (1995-1996): Forum for Technical Students, TU, Nepal
	+ **Acting President** (1994-1996): Free Students Union, IAAS Rampur, TU, Nepal
	+ **Vice President** (1992-1994): Free Students Union, IAAS Rampur, TU, Nepal

**INSTITUTIONAL SERVICE AT UH MANOA University level:**

* + - **Member (**2017-19, 2019-21): Research Advisory Committee of Vice Chancellor for Research, UHM
		- **Senator** (2017-19, 2019-21): Manoa Faculty Senate, UHM
		- **Reviewer of Grant / Scholarship Application:**

▪Marshall Scholarship, UH Manoa, Fall 2017.
▪Associated Students of the UH Manoa (ASUH) Spring 2012 and Fall 2015 Scholarship.
▪Undergraduate Research Opportunity Program (UROP), UH Manoa Fall 2015 Scholarship

* + - **Judge**:
		▪UROP Fall / Spring Symposium- Oral presentation (May 4, 2018, May 6, 2016, May 8, 2015, Dec 12, 2014, May 8, 2014), UH Manoa

**College level:**

* + - **Chair** (2015-16): CTAHR Faculty Senate Executive Committee
		- **Vice Chair** (2014-2015): CTAHR Faculty Senate Executive Committee
		- **Member** (2016): Search Committee for Interim Dean and Director of Research of CTAHR, (*Hire was made*)
		- **Member** (2013-14): Search Committee for Associate Dean and Associate Director of Research of CTAHR, (*Hire was made*)
		- **Member** (2013-14): CTAHR Faculty Senate Research Committee, UH Manoa
		- **Member** (2013-16): CTAHR Faculty Senate, UH Manoa
		- **Judge**:

▪Graduate Student Oral Presentation. Students’ Research Symposium (2013, 2014, 2015, 2016, 2017, and 2018)

**Department level:**

* + - **Graduate Chair** (Fall 2016 to date): Animal Sciences Program
		- **Chair** (2017 to date): Curriculum/Instruction Committee **Member** (2019): Search Committee for Assistant Professor of Nutritional Biochemistry (*Hire was made*)
	+ **Member** (2016-17): Curriculum/Instruction Committee
	+ **Member** (2012-16): Research and Extension Committee
	+ **Member** (2015-16): Search Committee for Assistant Professor of Physiology (*Hire was made*)
	+ **Mentor** (2015 to date): Graduate Students Organization of HNFAS, UH Manoa
	+ **Member** (2013 to date): Intercollege Nutrition PhD Program Committee.
	+ **Facilitator** to the “Internship program in Aquaponic System (4 months)” as a Nutrition Expert for 6 interns from Rota Island. The program was co-organized by HNFAS.

**PRESENTATION
Presentation as Invited Speaker**

***International presentation (invited)***

1. Nutritional management to modulate gut health of poultry. Northwest Agriculture & Forestry University (Aug 29, 2019), Yangling, China.
2. Dietary fiber as a substrate to modulate gut health of poultry. Kyoto University (July 19, 2019), Kyoto, Japan.
3. Dietary fibers in poultry nutrition: Nutrient utilization and beyond. Tokyo University of Agriculture and Technology, (July 4, 2019), Tokyo, Japan.
4. Antibiotic free poultry production for healthy chicken. 2nd International forum on Food Nutrition and Health (June 13-15, 2019), Hebei Agricultural University, Baoding, China.
5. ***Keynote speaker***: Poultry production in post-antibiotic era: Challenges and Opportunities. Workshop on safe poultry meat and egg production (April 13, 2019, via video conference), Bangladesh Agricultural University, Bangladesh.
6. ***Keynote Speaker***: Dietary fiber in poultry nutrition: focus on gut health. Poultry Nutrition and Health Forum (Oct 26-28, 2018), Beijing, China.
7. Strategies to modulate the gut microbiota of Tilapia. Can Tho University (June 12, 2018), Can Tho City, Vietnam.
8. Alternative feedstuffs for cost-effective and healthy monogastric animals and fish production. Sino-US Symposium on Food, Nutrition and Health (June 5, 2018), Haikou, China.
9. Fermentable carbohydrates in poultry diet to modulate its gut health. Konkuk University (May 11, 2018), Seoul, South Korea.
10. Nutrition programing to improve gut health of broiler chickens. Northwest A&F University (Aug 11, 2017), Yangling, China.
11. Evaluation of feedstuffs and feed additives for their effects on growth performance and gut health of monogastric animals. Konkuk University (April 1, 2017), Seoul, South Korea.

12.Growing healthy chicken in post-antibiotic era”. Agriculture and Forestry University (February 10, 2017, via video conference), Rampur, Nepal.

13. Probiotics in poultry nutrition. Nepal Veterinary Association (Dec 29, 2016), Kathmandu, Nepal.

14. ***Keynote Speaker***: Rapid techniques for feed evaluation: Scope and limitations. New Zealand Poultry Industry Conference (Oct 4-5, 2016), Wellington, New Zealand; Organized by World Poultry Science Association, New Zealand branch.

1. Tools and techniques for nutrition and gut health studies of monogastric animals. Feed Research Institute, China Academy of Agricultural Sciences (Sept 9, 2016), Beijing, China.
2. Dietary manipulation in swine to improve gut health and the environment. Kasetsart University (Sept 23, 2015), Bangkok, Thailand.
3. Animal feed to human food: Understanding the dynamics. Asian Institute of Technology (Sept 22, 2015), Pathumthani, Thailand.
4. Alternative feedstuffs in swine and poultry feeding: Opportunities and challenges. National Institute of Animal Sciences (July 3, 2014), Suwon, South Korea.

19.Tips and tricks of presenting works via peer-reviewed publications. Nepal Veterinary Association (May 24, 2013), Kathmandu, Nepal.

1. Co-products utilization in pig diets. Alberta Pork Regional Meeting (June 11, 2012), Grand Prairie, AB, Canada.
2. Probiotics, Prebiotics, Synbiotics and Immunobiotics: are they alternative to Antibiotics? National meeting of Nepal Veterinary Association (June 12, 2011), Kathmandu, Nepal.
3. Agriculture in Nepal: System, Issues and Options. Annual Conference of World Association of Agricultural Councils (March 10-15, 2009), Saskatoon, SK, Canada.

***National presentation (invited)***

23. Fiber in Swine diets: Nutrition and Beyond. University of Arkansas Fayetteville (March 10, 2014), Fayetteville, AR.

***Local presentation (invited)***

24. Nutrition programing for cost effective, sustainable, and healthy animal production. USDA- FAS Cochran Fellowship Program (participants from Thailand) at UH Manoa (Sept 19, 2017). 25.Can probiotics mitigate the ill-effects of antibiotic ban? Graduate Seminar Series of

Department of HNFAS, UH Manoa (Jan 27, 2017).

1. Sustainable animal feeding program in Hawaii: Opportunities and challenges. US Pacific Basin Agricultural Research Center (August 7, 2015), Hilo, HI, USA.
2. Feeding fermented diets using local feedstuffs to pigs and poultry. Korean Natural Farming Association (February 10, 2015), Hilo, HI, USA.
3. Animal feedstuffs, supplements and gut health: unlocking the potential. CTAHR- TUAT (Tokyo University of Agriculture and Technology) Research Symposium (May 14-15, 2015), UH Manoa.

29. Connecting the dots of Agriculture, Nutrition and Health: A global perspective. Graduate Seminar Series of Department of HNFAS, UH Manoa (Jan 30, 2015).

30.Effective teaching and learning: keys to consider. CTAHR Instructional Innovations Workshop, UH Manoa (Sept 11, 2013).

31. Use of fiber in swine diet: Basics to applied research. Graduate Seminar Series of Department of HNFAS, UH Manoa (Mar 18, 2013).

**Presentation in Professional Meetings (**\***Presenter)**- with award list

1. A. K. Singh\*, B. Mishra, and **R. Jha** (2019). Effects of early feeding with resistant starch during post-hatch on growth performance and gut health parameters of broilers (**Poster**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada.
2. A. K. Singh\*, U. P. Tiwari, B. Mishra, and **R. Jha**. Comparative effects of in ovo injection of oligosaccharides (xylotriose, xylotetraose, mannotriose, and mannotetraose) on growth performance and gut health parameters of broilers (**Poster**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada.
3. K. D. Caliboso, J. E. Nanquil, S. Yadav\*, H. Kae, K. Neupane, B. Mishra, and **R. Jha**. Cecal microbiota profile of Hawaiian feral chickens and pasture-raised broiler chickens (**Poster**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada.
4. S. Wasti\*, D. L. Kuehu, N. Sah, A. K. Singh, **R. Jha**, and B. Mishra. Dietary supplementation of dried plum: A novel strategy to mitigate heat stress in poultry (**Poster**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada. (Received **"Certificate of Excellence for Best Project in Metabolism and Nutrition Section"**)
5. N. Sah\*, D. L. Kuehu, S. Wasti, **R. Jha**, and B. Mishra. New transcriptomic insights into processes associated with formation of egg-white in the magnum of laying hens (**Poster**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada.
6. B. Mishra\*, N. Sah, D. L. Kuehu, S. Wasti, and **R. Jha**. Transcriptional regulation of albumen biosynthesis and eggshell biomineralization in the oviduct of laying hens (**Oral**). PSA Annual Meeting (July 15-18, 2019), Montréal, QC, Canada.
7. A. M. MacDonald\*, A. Garcia, and **R. Jha**. Modulation of the intestinal histology and microbiome using microalgae as a fishmeal/fish oil replacement in the diets of tilapia (**Oral**). 31st Annual CTAHR Student Research Symposium (April 15, 2019), Honolulu, HI, USA.
8. D. L. Kuehu\*, N. Sah, C. N. Lee, **R. Jha**, and B. Mishra. Heat stress impacts the health of the laying hen through altering the regulation of heat shock and reactive oxidative stress genes in the liver (**Oral**). 31st Annual CTAHR Student Research Symposium (April 15, 2019), Honolulu, HI, USA.
9. S. Wasti\*, D. L. Kuehu, N. Sah, A. K. Singh, **R. Jha**, and B. Mishra. Dietary supplementation of dried plum: A novel strategy to mitigate heat stress in poultry (**Oral**). 31st Annual CTAHR Student Research Symposium (April 15, 2019), Honolulu, HI, USA.
10. S. N. Haverly\*, S. Wasti, D. L. Kuehu, N. Sah, A. K. Singh, **R. Jha**, and B. Mishra. The effects of environmental heat stress on the spleens of broiler chickens (**Oral**). 31st Annual CTAHR Student Research Symposium (April 15, 2019), Honolulu, HI, USA (Received **CTAHR Best BS Student Oral Presentation Award**).
11. L. Li\*, A. K. Singh, B. Mishra, and **R. Jha**. Effect of *in ovo* injection of probiotic, prebiotic and synbiotic on growth performance and gut health parameters of broiler chickens (**Poster**). PSA Annual Meeting (July 23-26, 2018), San Antonio, TX, USA.

S. Yadav, Y. Li, Y. S. Kim, C. N. Lee, and **R. Jha**\*. Effect of feeding lactic acid bacteria isolated from taro (*Colocasia esculenta*) skins on growth performance, gut microbiota and muscle growth of broiler chickens (**Poster**). PSA Annual Meeting (July 23-26, 2018), San Antonio, TX, USA.

1. N. Sah\*, D. L. Kuehu, V. S. Khadka, **R. Jha**, and B. Mishra. Transcriptomic analysis of the shell gland in layers identifies novel genes in eggshell biomineralization (**Poster**). PSA Annual Meeting (July 23-26, 2018), San Antonio, TX, USA. (**Received "Certificate of Excellence for Best Project in Physiology and Reproduction Section" and "PSA Graduate Student Travel Award"**).
2. U. P. Tiwari, and **R. Jha**\*. Fermentation characteristics of xylo- and manno-oligosaccharides and soluble and insoluble arabinoxylan studied using an in vitro model of swine (**Poster**). ASAS/CSAS Annual Meeting and Trade Show (July 8-12, 2018), Vancouver, BC, Canada.
3. U. P. Tiwari, B. Kerr, and **R. Jha**\*. Nutrient and amino acids digestibility of animal protein byproduct in swine, determined using an in vitro model (**Poster**). ASAS/CSAS Annual Meeting and Trade Show (July 8-12, 2018), Vancouver, BC, Canada.
4. B. A. Castle\*, J. Odani, **R. Jha**, N. Ogasawara, and H. M. Zaleski. Survey of disease, management and biosecurity practices of Hawaii swine farmers (**Poster**). ASAS/CSAS Annual Meeting and Trade Show (July 8-12, 2018), Vancouver, BC, Canada.
5. A. MacDonald\*, and **R. Jha**. Evaluation of cassava chips as an alternative feed ingredient in hybrid tilapia (*Oreochromis niloticus* × *Oreochromis mossambicus*) aquaculture from gut health perspective (**Poster**). The International Symposium on Fish Nutrition and Feeding (June 3-7, 2018), Las Palmas de Gran Canaria, Spain.
6. S. Yadav\*, A. K. Singh, U. P. Tiwari, B. Mishra, and **R. Jha**. Cassava root chips an alternative to corn in broiler diet: effect on growth performance and gut health parameters (**Oral**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA (Received **HNFAS Best PhD Student Oral Presentation Award**).
7. A. K. Singh\*, T. Park, J. Legaspi, K. Neupane, and **R. Jha**. Effect of fiber degrading enzyme and feed’s residual fiber on cecal short-chain fatty acids production and microbial diversity as revealed by metagenomics during in vitro study in broilers (**Poster**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA.
8. U. P. Tiwari\*, B. Kerr, and **R. Jha**. Nutrient profile and in vitro digestibility of nutrients (energy, protein and amino acids) of animal protein byproducts (**Oral**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA.
9. A. Mau\*, J. Arios, A. Valdez, P. Nicodemus, **R. Jha**, and J. P. Bingham. Chemical Synthesis of a Novel Peptide (oGnRH) for Pheromone Stimulation of Spawning in ‘Opihi (*Cellana spp.*) (**Poster**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA (Received **CTAHR 30th Annual Best PhD Student Poster Presentation Award**).
10. L. Li\*, A. K. Singh, B. Mishra, and **R. Jha**. Effect of in ovo injection of probiotic, prebiotic and synbiotic on growth performance and gut health of broiler chickens (**Poster**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA.
11. D. L. Kuehu\*, N. Sah, C. N. Lee, **R. Jha**, and B. Mishra. Effects of heat stress on the oviductal gene expression and egg qualities in the laying hen (**Poster**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA.
12. N. Sah\*, D. L. Kuehu, V. S. Khadka, **R. Jha**, and B. Mishra. RNA sequencing of the shell gland reveals novel genes related to calcium remodeling during eggshell formation in laying hens (**Oral**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA (Received **HNFAS Best MS Student Oral Presentation Award**).
13. S. Wasti\*, N. Sah, D. L. Kuehu, Y.S. Kim, **R. Jha**, and B. Mishra. Expression of follistatin and myostatin in the oviduct of laying hen (**Poster**). 30th Annual CTAHR/COE Student

Research Symposium (April 6-7, 2018), Honolulu, HI, USA.

1. B. A. Castle\*, J. Odani, **R. Jha**, N. Ogasawara, H. M. Zaleski. Survey of disease, management

and biosecurity practices of Hawaii swine farmers (**Oral**). 30th Annual CTAHR/COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA (Received **Gamma Sigma Delta MS Student Oral Presentation Award**).

1. K. Rednour\*, J. Yoshioka, A. M. MacDonald, K. Neupane, and **R Jha**. Effects of replacing corn with sun-dried cassava chips in diets on the intestinal microbiota of hybrid tilapia (*Oreochromis niloticus × O. mossambicus*) (**Poster**). 30th Annual CTAHR /COE Student Research Symposium (April 6-7, 2018), Honolulu, HI, USA.
2. A. K. Singh\*, R. Kida, M. Bedford, and **R. Jha**. Effect of xylanase on growth performance and cecal short-chain fatty acid production in broilers fed different levels of fiber (**Poster**). PSA Annual Meeting (July 17-20, 2017), Orlando, FL, USA (**Received "Certificate of Excellence for Best Project in Metabolism and Nutrition Section"** and **"PSA Graduate Student Travel Award"**).
3. S. Yadav\*, and **R. Jha**. Cassava chips as an alternative feedstuff for broiler chickens: effect on growth performance and ileal morphology (**Poster**). PSA Annual Meeting (July 17-20, 2017), Orlando, FL, USA.
4. S. Yadav\*, K. Neupane, and **R. Jha**. Macadamia nut cake as an alternative feedstuff for broiler chickens: effect on growth performance and gut microbiota profile (**Poster**). PSA Annual Meeting (July 17-20, 2017), Orlando, FL, USA.
5. U. P. Tiwari, and **R. Jha**\*. Supplementation of xylanase and mannanase influences in vitro fermentation characteristics of distiller's dried grain with solubles in the large intestine of swine (**Oral**). ASAS/CSAS Annual Meeting and Trade Show (July 8-12, 2017), Baltimore, MD, USA.
6. A. K. Singh\*, R. Kida, M. Bedford, and **R. Jha**. Growth performance and cecal short-chain fatty acid production in broilers fed different levels of wheat bran without or with xylanase (**Oral**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA (Received **CTAHR PhD Student Oral Presentation Award of Merit**).

33.U. P. Tiwari\*, and R. Jha. Supplementation of enzymes affects in vitro fermentation characteristics of distillers dried grain with solubles in swine (**Poster**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA (Received **HNFAS Best PhD Student Poster Presentation Award**).

1. A. Mau\*, and **R. Jha**. The effect of protein-energy ratio in diets on the growth performance of ‘opihi (*Cellana sandwicensis*) in a novel rearing system (**Oral**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA (Received **CTAHR MS Student Oral Presentation Award of Merit**).
2. S. Yadav\*, K. Neupane, and **R. Jha**. Macadamia nut cake as an alternative feedstuff for broiler chickens: effect on growth performance and gut microbiota (**Oral**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA (Received **HNFAS Best MS Student Oral Presentation Award**).

J. Kai\*, J. P. Bingham, A. Franke, G. Agbor, M. Stewart, and **R. Jha**. Nutrient profile of Hawaii and Cameroon grown avocados (**Poster**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA.

1. N. Ogasawara\*, J. Odani, **R. Jha**, B. Castle, and H. M. Zaleski. Evaluating swine herd health and farm practices in Hawaii (**Poster**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA.
2. D. Inouye\*, J. Miller, S. Yadav, K. Neupane, and **R. Jha**. Effect of Macadamia Nut Cake on Gut Microbial Diversity in Broiler Chickens (**Poster**). 29th Annual CTAHR/COE Student Research Symposium (April 7-8, 2017), Honolulu, HI, USA (Received **HNFAS Best BS Student Poster Presentation Award**).
3. J. D. Berrocoso, A. K. Singh, and **R. Jha**\*. Effect of macadamia nut cake inclusion on growth performance of pasture raised broiler chickens (**Poster**). World’s Poultry Congress (Sept 5-9, 2016), Beijing, China.
4. Y. S. Kim\*, G. Fukumoto, M. Stevenson, M. Thorne, and **R. Jha**. Carcass traits and tenderness of grass-fed beef from subtropical pastures in Hawaii (**Oral**). AAAP Animal Science Congress (Aug 22-25, 2016), Fukuoka, Japan.
5. U. P. Tiwari\*, and **R. Jha**. Nutrient profile and in vitro digestibility of cassava silages in swine (**Poster**). ASAS/ADSA/CSAS/WSASAS Joint Annual Meeting (July 19-23, 2016), Salt Lake City, UT, USA.
6. U. P. Tiwari\*, H. Chen, S. W. Kim, and **R. Jha**. Effect of supplemental enzyme on growth performance, digesta viscosity, apparent total tract digestibility of nutrients in nursery pigs (**Oral**). ASAS/ADSA/CSAS/WSASAS Joint Annual Meeting (July 19-23, 2016), Salt Lake City, UT, USA.
7. U. P. Tiwari\*, M. Mattus, K. Neupane, and **R. Jha**. In vitro fermentation characteristics of agricultural products and coproducts and its effect on the large intestinal microbiota of swine (**Oral**). ASAS/ADSA/CSAS/WSASAS Joint Annual Meeting (July 19-23, 2016), Salt Lake City, UT, USA.
8. C. Liu, A. K. Singh, M. Stewart, J. H. Uyehara-Lock, and **R. Jha\***. Effects of dietary fibers on obesity related physiological parameters in C57BL/6 mice (**Oral**). ASAS/ADSA/CSAS/WSASAS Joint Annual Meeting (July 19-23, 2016), Salt Lake City, UT, USA.
9. B. S. McNeill, J. Odani, **R. Jha\***, and H. M. Zaleski. Prevalence of Brucella suis in hunting dogs in Hawaii (**Poster**). ASAS/ADSA/CSAS/WSASAS Joint Annual Meeting (July 19-23, 2016), Salt Lake City, UT, USA.
10. A. K. Singh\*, J. D. Berrocoso, R. Kida, Y. S. Kim, and **R. Jha**. *In ovo* inoculation of raffinose improves hatchability, vitalizes gut mucosa and enhances immune response in broiler chickens (**Oral**). Poultry Science Association Annual Meeting (July 11-14, 2016), New Orleans, LA, USA.
11. S. Yadav\*, J. D. Berrocoso, and **R. Jha**. Nitrogen-corrected apparent metabolizable energy value of macadamia nut cake for broiler chickens (**Poster**). Poultry Science Association Annual Meeting (July 11-14, 2016), New Orleans, LA, USA (Received **Certificate of Excellence for Best Presentation in Nutrition and Metabolism section**).
12. A. M. Haygood\*, and **R. Jha**. Evaluation of moringa leaves as a prebiotic in tilapia aquaculture from a production and health perspective. The International Symposium on Fish Nutrition and Feeding (June 5-10, 2016), Sun Valley, ID, USA.

A. K. Singh\*, J. D. Berrocoso, R. Kida, Y. S. Kim, and **R. Jha**. In ovo inoculation of raffinose improves hatchability, gut mucosal health and immune response in broiler chickens (**Oral**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **HNFAS Best PhD Student Oral Presentation Award**).

1. A. M. Haygood\*, and **R. Jha**. Evaluation of moringa leaves as an alternative feed ingredient in tilapia (*Oreochromis niloticus*) aquaculture from production, gut health, and economic perspective (**Oral**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **MBBE Best PhD Student Oral Presentation Award**).
2. U. P. Tiwari\*, S. W. Kim, and **R. Jha**. Effect of supplemental enzymes on growth performance, digesta viscosity, nutrient and fiber digestibility of nursery pigs (**Oral**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA.
3. S. Yadav\*, J. D. Berrocoso, and **R. Jha**. Apparent metabolizable energy content of Macadamia nut cake for broiler chickens (**Oral**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **HNFAS Best MS Student Oral Presentation Award**).
4. A. K. Singh\*, J. D. Berrocoso, J. Ludovico, and **R. Jha**. Effect of macadamia nut cake inclusion in diets on growth performance and cost of production of pasture raised broiler chickens in Hawaii (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **Gamma Sigma Delta PhD Student Poster Presentation Award**).
5. U. P. Tiwari\*, and **R. Jha**. Nutrient profile and in vitro digestibility of cassava silages in swine (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **HNFAS Best PhD Student Poster Presentation Award**).
6. K. Butler\*, G. K. Fukumoto, Y. S. Kim, and **R. Jha**. Seasonal and locational variation of nutrient profile and in vitro digestion kinetics of guinea grass and kikuyu grass for grass-fed beef production system on Hawaii Island (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA.
7. C. Malabad\*, K. Balagso, A. Haygood, K. Neupane, and **R. Jha**. Effects of in vitro fermentation of alternative feedstuffs on intestinal microbiota of chicken analyzed using 16S ribosomal DNA typing (**Oral**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA.
8. S. Mattus\*, U. P. Tiwari, K. Neupane, and **R. Jha**. In vitro fermentation of Hawaiian feedstuffs and its effect on the intestinal microbiota of swine (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA (Received **CTAHR Best BSc Student Poster Presentation Award**).
9. T. Peterson\*, L. Galicia, A. Haygood, K. Neupane, and **R. Jha**. In vitro fermentation of cassava silages and its effect on the intestinal microbiota of chicken (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA.
10. A. P. Langlois\*, W. L. Ribeiro, and **R. Jha**. Nutritional value of rendered products in swine studied in vitro (**Poster**). 28th Annual CTAHR/COE Student Research Symposium (April 8-9, 2016), Honolulu, HI, USA.
11. T. Tashiro\*, T. Mendiola, A. K. Singh, A. Haygood, K. Neupane, and **R. Jha**. Supplementing Enzymes and Probiotics affect Gut Microbiota of Broiler Chicken Fed Fibrous Diets (**Poster**). NIH IDeA Western Regional Conference (Oct 12-14, 2015), Coeur d’Alene, ID, USA.

U. P. Tiwari, and **R. Jha**\*. Nutrient profile and in vitro digestibility of fresh and ensiled cassava in swine (**Oral**). International Seminar on Animal Industry (Sept 17-18, 2015) Bogor, Indonesia.

1. A. K. Singh\*, J. D. Berrocoso, Y. Dersjant-Li, A. Awati, and **R. Jha**. Effect of supplemental multi-enzymes and direct fed microbial on nutrients digestibility in broilers fed low and high fiber diets (**Oral**). Poultry Science Association Annual Meeting (July 27-30, 2015), Louisville, KY, USA.
2. A. K. Singh\*, J. D. Berrocoso, U. P. Tiwari, Y. Dersjant-Li, A. Awati, and **R. Jha**. Effect of supplemental multi-enzymes on growth performance of broilers fed low and high fiber diets (**Poster**). Poultry Science Association Annual Meeting (July 27-30, 2015), Louisville, KY, USA.
3. U. P. Tiwari and **R. Jha**\*. Nutrient profile and digestibility of macadamia nut cake as determined using an in vitro model of swine (**Oral**). ASAS/ADSA Joint Annual Meeting (July 12-16, 2015), Orlando, FL, USA.
4. U. P. Tiwari\*, H. M. Zaleski, and **R. Jha**. Nutrient profile and digestibility of agro-industrial coproducts as determined using an in vitro model of swine (**Oral**). ASAS/ADSA Joint Annual Meeting (July 12-16, 2015), Orlando, FL, USA.
5. U. P. Tiwari\* and **R. Jha**. Nutritional value of macadamia nut cake for swine (**Oral**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA (Received **HNFAS Best PhD Student Oral Presentation Award**).
6. A. K. Singh\*, J. D. Berrocoso, Y. Dersjant-Li, A. Awati, and **R. Jha**. Supplemental multi- enzymes and probiotics enhance nutrient digestibility in broilers fed low and high fiber diets (**Oral**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.
7. U. P. Tiwari\*, H. M. Zaleski, and **R. Jha**. Nutritional value of agro-industrial co-products in swine (**Poster**). 27th Annual CTAHR/COE Student Research Symposium, Honolulu, HI, USA.
8. A. K. Singh\*, J. D. Berrocoso, Y. Dersjant-Li, A. Awati, and **R. Jha**. Supplemental multi- enzymes affect growth performance of broilers fed low and high fiber diets (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA

(Received **HNFAS Best PhD Student Poster Presentation Award**).

1. A. K. Singh\*, M. W. DuPonte, and **R. Jha**. Growth performance and economics of raising pastured broiler chicken fed with diet based on local feedstuffs in Hawaii (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.
2. C. Liu\*, A. K. Singh, M. Stewart, J. Uyehara-Lock, and **R. Jha**. Effects of fibers with varying viscosity and solubility on obesity related physiological parameters of mice (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA

(Received **HNFAS Best MS Student Poster Presentation Award**).

1. K. Butler\*, G. K. Fukumoto, Y. S. Kim, and **R. Jha**. Nutrient profile of leucaena and guinea

grass and growth performance and carcass quality of beef cattle grazed on these pastures in Hawaii (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.

1. B. S. McNeill\*, H. M. Zaleski, A. M. Stokes, and **R. Jha**. *Brucella suis* in hunting dogs (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.

74. M. Sakuda\* and **R. Jha**. Nutritional value of macadamia nut cake for tilapia (*Oreochromis honorum*) (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI (Received **HNFAS Best BSc Student Poster Presentation Award**).

1. S. Mattus\*, C. Bednarczyk, U. P. Tiwari, A. Haygood, K. Neupane, and **R. Jha**. Effect of in vitro fermentation of Hawaiian feedstuffs on intestinal microbial communities of pigs (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.
2. T. Tashiro\*, T. Mendiola, A. K. Singh, A. Haygood, K. Neupane, and **R. Jha**. Effects of Supplementing Multi-Enzymes and Probiotics on Gut Microbiota of Broiler Chicken Fed High and Low Fiber Diets (**Poster**). 27th Annual CTAHR/COE Student Research Symposium (April 10-11, 2015), Honolulu, HI, USA.
3. U. P. Tiwari, B. Turano, and **R. Jha**\***.** Nutritional characteristics and in vitro digestibility by near-infrared spectroscopy of local and hybrid napiergrass varieties grown in rain-fed and irrigated conditions (**Oral**). Joint ISNH/ISRP International Conference (Sept 8-12, 2014), Canberra, Australia.
4. U. P. Tiwari\*, A. K. Singh, H. M. Zaleski, and **R. Jha**. Nutrient profile and in vitro digestibility of tubers in swine (**Oral**). ASAS/ADSA/CSAS Joint Annual Meeting (July 20-24, 2014), Kansas City, MO, USA.
5. T. A. Woyengo\*, **R. Jha**, E. Beltranena, and R. T. Zijlstra. In vitro digestion and fermentation characteristics and in vivo digestibility of canola co-products in the pigs (Oral). ASAS/ADSA/CSAS Joint Annual Meeting (July 20-24, 2014), Kansas City, MO, USA.
6. M. Sakuda\* and **R. Jha**. Effect of macadamia nut cake on growth performance and carcass quality of tilapia (*Oreochromis honorum*) (**Oral**). UROP Spring Symposium (May 8, 2014), UH Manoa, Honolulu, HI, USA.
7. U. P. Tiwari\*, B. Turano, and **R. Jha**. Nutritional profile and in vitro digestibility of local and hybrid napiergrass varieties grown in rain-fed and irrigated conditions (**Poster**). 26th Annual CTAHR/COE Student Research Symposium (April 11-12, 2014), Honolulu, HI, USA.
8. U. P. Tiwari\*, A. K. Singh, H. M. Zaleski, and **R. Jha**. Tubers can be used as alternative feedstuffs for swine feeding in Hawaii (**Oral**). 26th Annual CTAHR/COE Student Research Symposium (April 11-12, 2014), Honolulu, HI, USA.

83. **R. Jha**\*, P. Wasti, K. Thapa, and C. Chan-Halbrendt. Impact of farming system on nutritional status of women and children of Chepang Community of Nepal (**Oral**). International Conservation Agriculture Conference (Dec 9-13, 2013), Battambang, Cambodia.

84. **R. Jha**\*, L. F. Wang, P. R. Regmi, A. Pharazyn, and R. T. Zijlstra. Nutrient profile and in vitro vs. in vivo energy digestibility of legumes in growing pigs (**Oral**). ASAS/ADSA Joint Annual Meeting (July 8-12, 2013), Indianapolis, IN.

85. **R. Jha**\*, P. R. Regmi, L. F. Wang, A. Pharazyn, and R. T. Zijlstra. Nutrient profile and in vitro vs. in vivo energy digestibility of wheat co-products from flour milling in growing pigs (**Oral**). ASAS/ADSA Joint Annual Meeting (July 8-12, 2013), Indianapolis, IN.

1. T. A. Woyengo\*, **R. Jha**, E. Beltranena, and R. T. Zijlstra. In vitro degradation and fermentation characteristics of expeller-pressed canola meal and cold-pressed canola cake simulating the pig intestine (**Oral**). ASAS/ADSA Joint Annual Meeting (July 8-12, 2013), Indianapolis, IN, USA.
2. T. A. Woyengo\*, **R. Jha**, E. Beltranena, A. Pharazyn, and R. T. Zijlstra. Nutritional value of lentil and micronized full-fat soybean fed to growing pigs (**Oral**). ASAS/ADSA Joint Annual Meeting (July 8-12, 2013), Indianapolis, IN, USA.

88. **R. Jha**, P. Regmi, L. Wang\*, A. Pharazyn, and R. T. Zijlstra. Nutrient profile and energy digestibility of wheat co-products from flour milling differ in growing pigs (**Poster**). Banff Pork Symposium (Jan 15-17, 2013), Banff, AB, Canada.

89. T. A. Woyengo\*, **R. Jha**, E. Beltranena, A. Pharazyn, and R. T. Zijlstra (2013). Nutritional value of lentil and micronized full-fat soybean fed to growing-finishing pigs (**Poster**). Banff Pork Symposium (Jan 15-17, 2013), Banff, AB, Canada.

90. **R. Jha**\*, P. Leterme, A. G. Van Kessel, and R. T. Zijlstra. Fermentation characteristics of fibers in the matrix of cereals (barley and oats) or isolated from cereals in the pig intestine (**Oral**). 7th Canadian Barley Symposium (July 8 - 10, 2012), Calgary, AB, Canada.

91. **R. Jha**\*, J. Li, M. R. Bedford, C. R. Christensen, T. Vasanthan, and R. T. Zijlstra. Microscopic matrix and in vitro pig model fermentation of wheat and corn distillers dried grains with solubles with supplemental carbohydrases and protease (**Poster**). 12th International Symposium on Digestive Physiology of Pigs (May 29 - Jun 1, 2012), Keystone, CO, USA.

92. **R. Jha**\*, A. Owusu-Asiedu, P. H. Simmins, A. Pharazyn, and R. T. Zijlstra. Microscopic matrix and in vitro degradation and fermentation characteristics of wheat co-products from flour milling in the pig intestine (**Poster**). 12th International Symposium on Digestive Physiology of Pigs (May 29 - Jun 1, 2012), Keystone, CO, USA.

93. R. T. Zijlstra\*, **R. Jha**, A. D. Woodward, J. Fouhse, and T. A. T. G. van Kempen. Starch and fiber properties affect their kinetics of digestion and thereby digestive physiology in pigs (**Oral- Invited**). 12th International Symposium on Digestive Physiology of Pigs (May 29 - Jun 1, 2012), Keystone, CO, USA.

94. **R. Jha**\*, J. Li, M. R. Bedford, C. R. Christensen, T. Vasanthan, and R. T. Zijlstra. In vitro fermentation and microscopic matrix of distillers dried grains with solubles following enzyme treatment (**Oral**). ASAS/ADSA Midwestern Conference (Mar 19-21, 2012), Des Moines, IA, USA.

95. R. T. Zijlstra\* and **R. Jha**. Novel swine feeding programs to enhance competitiveness and pork differentiation: Feedstuffs and Carbohydrates (**Oral- invited**). Banff Pork Seminar (Jan 17-20, 2012), Banff, AB, Canada.

96. **R. Jha**\*, J. Li, M. R. Bedford, C. R. Christensen, T. Vasanthan, and R. T. Zijlstra. Enzymes enhance degradation of DDGS, revealed by in vitro gas production and microscopic examination (**Poster**). Banff Pork Seminar (Jan 17-20, 2012), Banff, AB, Canada.

97. **R. Jha**\* and R. T. Zijlstra. Evaluation of fermentation characteristics and volatile fatty acids production of unique fiber and starch sources using an in vitro model of the pig large intestine (**Oral**). ASAS/ADSA Midwestern Conference (Mar 14-16, 2011), Des Moines, IA, USA.

98.**R. Jha**\***,** J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra. Dietary co- productsenhances pork omega-3 fatty acid and reduce feed costs without affecting carcass quality and growth (**Poster**). Banff Pork Seminar (Jan 18-21, 2011), Banff, AB, Canada.

99. **R. Jha**\***,** J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra. Effects of dietary crude protein and co-product level on growth performance and carcass quality of grower-finisher pigs (**Poster**). Banff Pork Seminar (Jan 18-21, 2011), Banff, AB, Canada.

100. **R. Jha**\***,** D. N. Overend, P. H. Simmins, D. Hickling, and R. T. Zijlstra. Effect of Canadian wheat classes on growth performance and energy digestibility in weaned pigs fed in pelleted diets (**Poster**). Banff Pork Seminar (Jan 18-21, 2011), Banff, AB, Canada.

101. **R. Jha**\* and R. T. Zijlstra. Fermentation characteristics of unique fiber and starch sources in the pig (**Poster**). Banff Pork Seminar (Jan 18-21, 2011), Banff, AB, Canada.

102. R. T. Zijlstra**\***, M. Swift, L. Wang, P. Regmi, J. H. Helm, and **R. Jha**. Rapid methods for prediction of energy values of feedstuffs for pigs (**Oral-invited**). Western Nutrition Conference (Sept 21-23, 2010), Saskatoon, SK, Canada.

103. **R. Jha**\***,** J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra. Co-products inclusion in grower-finisher pig diets enhances carcass characteristics and reduces feed costs without affecting growth performance (**Poster**). Western Nutrition Conference (Sept 21-23, 2010), Saskatoon, SK, Canada.

104. K. Kandel\*, **R. Jha**, E. Beltranena, and R. T. Zijlstra. Effects of different sources of distillers dried grains with solubles on energy and protein digestibility and volatile fatty acids production in grower-finisher pigs (**Poster**). Western Nutrition Conference (Sept 21-23, 2010), Saskatoon, SK, Canada.

105. **R. Jha**\*, J. K. Htoo, M. G. Young, E. Beltranena, and R. T. Zijlstra. Effects of co-products inclusion on growth performance and carcass characteristics of grower-finisher pigs (**Oral**). Joint Meeting of ADSA.PSA.AMPA.CSAS.WSASAS.ASAS (July 11-15, 2010), Denver, CO, USA.

106. R. T. Zijlstra\*, **R. Jha**, M. G. Young, J. F. Patience, E. Beltranena, and J. K. Htoo. Effects of dietary crude protein and inclusion of co-products on growth performance and carcass characteristics of grower-finisher pigs (**Oral**). Joint Meeting of ADSA. PSA. AMPA. CSAS. WSASAS. ASAS (July 11-15, 2010), Denver, CO, USA.

107. **R. Jha**\*, J. Bindelle, B. Rossnagel, A. Van Kessel, and P. Leterme. In vitro fibre fermentation characteristics of specialty ingredients with varying NSP levels **(Poster)**. Western Nutrition Conference (Sept 23-25, 2009), Winnipeg, MB, Canada.

108. **R. Jha**, J. Bindelle, B. Rossnagel, A. Van Kessel, and P. Leterme\*. Fermentation characteristics in the pig intestines of hulless barleys differing in β-glucan content, studied with an in vitro techniques **(Poster)**. 11th International Symposium on Digestive Physiology of Pigs (May 20-22, 2009), Montbrio del camp, Spain.

109. **R. Jha**\*, J. Bindelle, B. Rossnagel, A. Van Kessel, and P. Leterme. In vitro Evaluation of the Fermentation Characteristics in the Pig Intestines of Hulless Barleys Differing in β-glucan Content **(Oral)**. ASAS/ADSA Midwestern Conference (Mar 18-20, 2009), Des Moines, IA, USA.

110. **R. Jha**\*, P. Kish, A. Van Kessel, and P.Leterme. Feed Ingredients Differing in Fermentable Fibre Content Affect Nitrogen Excretion and Fermentation Metabolites in Weaned Pigs (**Poster**). Banff Pork Seminar (Jan 20-23, 2009), Banff, AB, Canada.

111. **R. Jha**\*, R. Pieper, B. Rossnagel, A. Van Kessel, and P. Leterme. Digestibility and Fermentation Parameters of Barley and Oats Differing in β-glucan Content in the Pig Intestines (**Oral**). ASAS/ADSA Midwestern conference (Mar 17-19, 2008), Des Moines, IA, USA.

112. R. Pieper\*, **R. Jha**, P. Leterme, B. Rossnagel, W. Souffrant, and A. Van Kessel. Effect of barley and oats β-glucans on intestinal microbiota in the pig (**Oral**). ASAS/ADSA Midwestern conference (Mar 17-19, 2008), Des Moines, IA, USA.

113. **R. Jha**\*, R. Pieper, B. Rossnagel, A. Van Kessel, and P. Leterme. Effect of Oats and Hulless Barleys Differing in β-glucan Content on Digestibility and Intestinal Fermentation Parameters in Weaned Pigs (**Poster**). Banff Pork Seminar (Jan 15-18, 2008), Banff, AB, Canada.

114. R. Pieper\*, **R. Jha**, A. Van Kessel, B. Rossnagel, W. Souffrant, and P. Leterme. Effect of hulless barleys differing in β-glucan content on the intestinal ecology of weaned pigs (**Poster**). Banff Pork Seminar (Jan 15-18, 2008), Banff, AB, Canada.

115. K. Mai\*, **R. Jha**, R. P. Kwakkel, A. F. B. van der Poel, and M. W. A. Verstegen. Effect of diet structure, conformation and acidification on performance of broilers (**Poster**). 31st Annual Meeting of Dutch Speaking Nutritionists (Apr 7, 2006), Rotterdam, The Netherlands.

116. **R Jha**\*, G. N. Gongal, and S. N. Mahato. A Retrospective Study of Animal Rabies in Nepal (**Oral**). Sixth National Veterinary Conference (Sept 22-24, 1999), Kathmandu, Nepal.

117. **R. Jha**\*, B. Pakhrin, and R. P. Thakur. Reproductive Problems in Pigs in the Eastern Hills of Nepal (**Oral**): Second National workshop on Livestock and Fisheries Research (Sept 24-25, 1997), Lalitpur, Nepal.

118. I. P. Dhakal\*, **R. Jha,** and H Basnet. Epidemiological Investigation of Common Diseases of Livestock at Pathivara VDC of Sankhuwasabha District, Nepal (**Oral**). Fifth National Veterinary Conference (Sept 11-13, 1996), Kathmandu, Nepal.